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**UNIVERSITÄT
BERN**

Climate and Environmental Physics, Sidlerstrasse 5, CH-3012 Bern

Faculty of Science

Physics Institute

Climate and Environmental Physics

The Division of Climate- and Environmental Physics, Physics Institute, University of Bern opens **two PhD** positions in ice sheet modelling under the title:

Investigating past and future Antarctic ice sheet dynamics and sea-level contributions with an isochronally calibrated ice sheet model

The positions are part of the SNF-funded CHARIBDIS-project which aims at improving and calibrating ice sheet models via the Antarctic radiostratigraphic record. The successful applicants will be part of the ice sheet modelling group at the University of Bern with many opportunities for collaboration and extended research visits internationally.

Background

The evolution of the Antarctic Ice Sheet during the coming centuries and millennia is highly uncertain. Its future path could make it the dominating driver of global sea level rise, thwarting even a complete loss of the entire Greenland Ice Sheet under the most dire climate scenarios. At the same time, the heuristics involved in the parameterization of current ice sheet models are insufficient to adequately capture e.g. dynamic Antarctic drainage sectors thus leading to large uncertainties in sea level projections. The successful candidates will carry out model projections and reconstructions of Antarctic ice sheet evolution and sea level contributions for the next centuries and millennia as well as past critical climate transitions (i.e. Last Interglacial, mid-Pleistocene Transition, Last Glacial Maximum). The candidates will employ and develop an isochronally calibrated ice sheet model, therefore reducing long-standing uncertainties associated with Antarctic sea level projections.

Qualifications

We are looking for highly motivated PhD-candidates with a strong drive to explore physical processes in the earth system as well as an interest in models and observational data. Applicants should have solid analytical skills, preferably in the natural sciences or disciplines with a foundation in data analysis and interpretation. Prior experience in programming (e.g. C++, Python, Matlab) and a background in physics and or mathematics are a plus but not a strict requirement. Good communication skills in English (both verbal and written) and willingness to closely collaborate with colleagues at the University of Bern and beyond are expected.

The Climate and Environmental Physics Institute at the University of Bern offers a highly interdisciplinary and team-oriented work environment.

Intended start date: 01.11. 2023 and 01.02.2024 or to be agreed

Duration: 4 years

In order to receive full consideration, applications must be submitted before April 15th 2023 but the positions will stay open until filled.

Your application is in one pdf-file and consists of a motivation letter, CV a link to a PDF file of your Master thesis, and the names and addresses of at least two references. Please send the application or job-related inquiries to johannes.sutter@unibe.ch.

Bern, 7. März 2023